



# CompTIA: A+ Practical Application (Exam 220-902)

Course ID #: 1200-301-09-W

Hours: 35

## Course Content

### Course Description:

If you are getting ready for a career as an entry-level information technology (IT) professional or computer service technician, the CompTIA® A+® (Exam 220-902) course is one of the first steps in your preparation. The course will build on your existing user-level knowledge and experience with personal computer (PC) software and operating systems to present fundamental skills and concepts that you will use on the job. In this course, you will acquire the essential skills and information you will need to install, configure, optimize, troubleshoot, upgrade, secure, and perform preventive maintenance on PC and digital device operating systems.

The CompTIA A+ (Exam 220-902) course can benefit you in two ways. Whether you work or plan to work in a mobile or corporate environment where you have a high level of face-to-face customer interaction, where client communication and client training are important, or in an environment with limited customer interaction and an emphasis on application, operating system, and security-related activities, this course provides the background knowledge and skills you will require to be a successful A+ technician. It can also assist you if you are preparing to take the CompTIA A+ certification examination, 2016 objectives (exam number 220-902), in order to become a CompTIA A+ Certified Professional.

### At Course Completion:

After completing this course, student will be able to:

- Identify the basic components and functions of operating systems.
- Identify networking and security fundamentals.
- Identify the operational procedures that should be followed by professional PC technicians.
- Install and configure Microsoft Windows.
- Optimize and maintain Microsoft Windows.
- Work with other operating systems.
- Identify network technologies.
- Configure networking capabilities.
- Support mobile digital devices.
- Identify security threats, vulnerabilities, and controls.
- Implement security controls.
- Troubleshoot system-wide issues.



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## Target Student:

This course is designed for individuals who have basic computer user skills and who are interested in obtaining a job as an entry-level IT technician. This course is also designed for students who are seeking the CompTIA A+ certification and who want to prepare for the CompTIA A+ 220-902 Certification Exam.

To become CompTIA A+ certified, you need to take and pass both exam 220-901 and 220-902.

## Prerequisites:

To ensure your success in this course, you should have basic computer user skills, be able to complete tasks in a Microsoft® Windows® environment, be able to search for, browse, and access information on the Internet, and have basic knowledge of computing concepts. You can obtain this level of skills and knowledge by taking any introductory computing course from Logical Operations, such as:

- Using Microsoft® Windows® 10

The prerequisites for this course differ significantly from the prerequisites for the CompTIA certification exams. For the most up-to-date information about the exam prerequisites, complete the form on this page: <http://certification.comptia.org/Training/testingcenters/examobjectives.aspx>.

## Topics:

### Module 01: Operating System Fundamentals

- PC and Mobile Operating Systems
- PC Operating System Tools and Utilities

### Module 02: Networking and Security Fundamentals

- Common Network Services
- Cloud Concepts
- Security Fundamentals

### Module 03: Safety and Operational Procedures

- Basic Maintenance Tools and Techniques
- Personal and Electrical Safety
- Environmental Safety and Materials Handling
- Professionalism and Communication
- Organizational Policies and Procedures
- Troubleshooting Theory

### Module 04: Installing and Configuring Microsoft Windows

- Implement Client-Side Virtualization
- Install Microsoft Windows
- Use Microsoft Windows
- Configure Microsoft Windows
- Upgrade Microsoft Windows

### Module 05: Optimizing and Maintaining Microsoft Windows

- Optimize Microsoft Windows
- Back Up and Restore System Data
- Perform Disk Maintenance
- Update Software



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## Module 06: Working With Other Operating Systems

- The OS X Operating System
- The Linux Operating System

## Module 07: Networking Technologies

- TCP/IP
- Internet Connections

## Module 08: Configuring Networking Capabilities

- Configure Basic Windows Networking
- Configure Windows Proxy and Firewall Settings
- Using Windows Networking Features

## Module 09: Supporting Mobile Digital Devices

- Mobile Device Accessories and Ports
- Mobile Device Connectivity
- Mobile Device Synchronization

## Module 10: Security Threats, Vulnerabilities, and Controls

- Common Security Threats and Vulnerabilities
- General Security Controls
- Mobile Security Controls
- Data Destruction and Disposal Methods

## Module 11: Implementing Security Controls

- Secure Operating Systems
- Secure Workstations
- Secure SOHO Networks
- Secure Mobile Devices

## Module 12: Troubleshooting System-Wide Issues

- Troubleshoot PC Operating Systems
- Troubleshoot Mobile Device Operating Systems and Applications
- Troubleshoot Common Security Issues

## Appendix A: Mapping Course Content to CompTIA A+ Certification Exam 220-902

## Appendix B: A+ Command Reference

## Appendix C: A Brief History of Personal Computers